

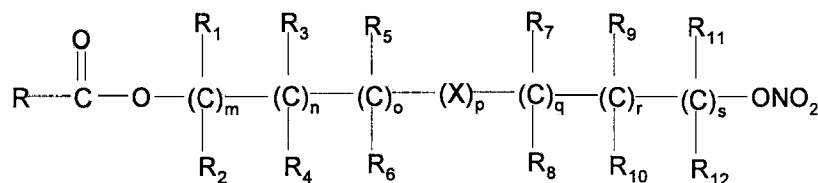
OK TO ENTER

/ML/

I. AMENDMENTS TO THE CLAIMS:

06/14/2008

Claim 1. (Previously Presented) A process for preparing a compound of general formula (A)



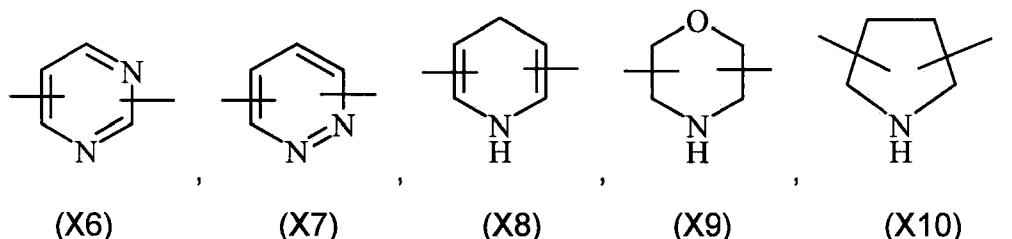
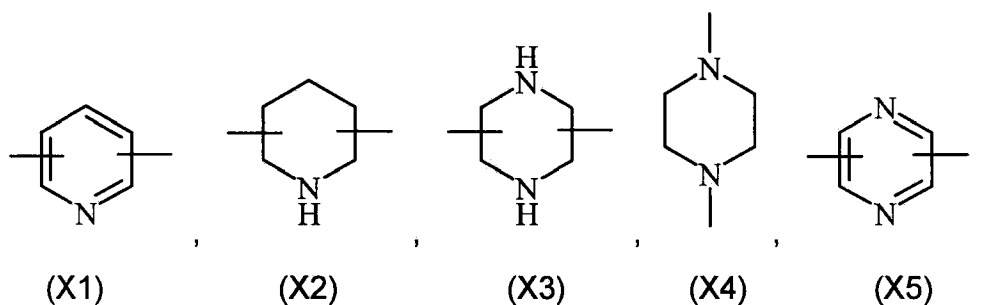
(A)

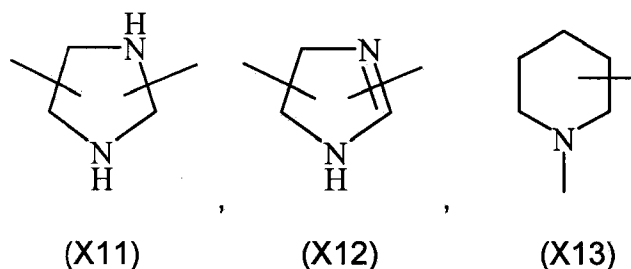
wherein R₁-R₁₂ are the same or different and independently are hydrogen, straight or branched C₁-C₆ alkyl, optionally substituted with aryl;

m, n, o, q, r and s are each independently an integer from 0 to 6, and p is 0 or 1, and

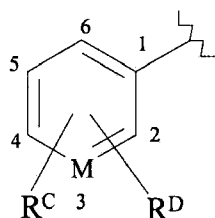
X is O, S, SO, SO₂, NR₁₃ or PR₁₃, in which R₁₃ is hydrogen, C₁-C₆ alkyl, or X is selected from the group consisting of:

- saturated or unsaturated C₅-C₇ cycloalkylene, optionally substituted with one or more straight or branched C₁-C₃ alkyl groups;
- arylene, optionally substituted with one or more halogen atoms, straight or branched alkyl groups containing from 1 to 4 carbon atoms, or a straight or branched C₁-C₃ perfluoroalkyl;
- a 5 or 6 member saturated, unsaturated, or aromatic heterocyclic ring selected from

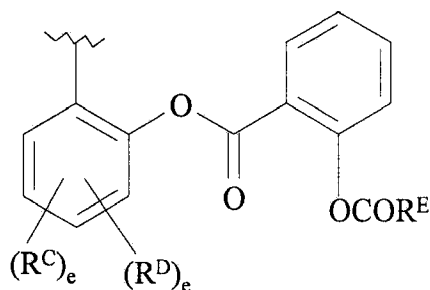




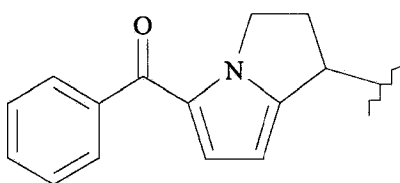
and R is the radical of a pharmacologically active compound selected from the group consisting of:



(I)



(II)



(III)

wherein M is a carbon or nitrogen atom;

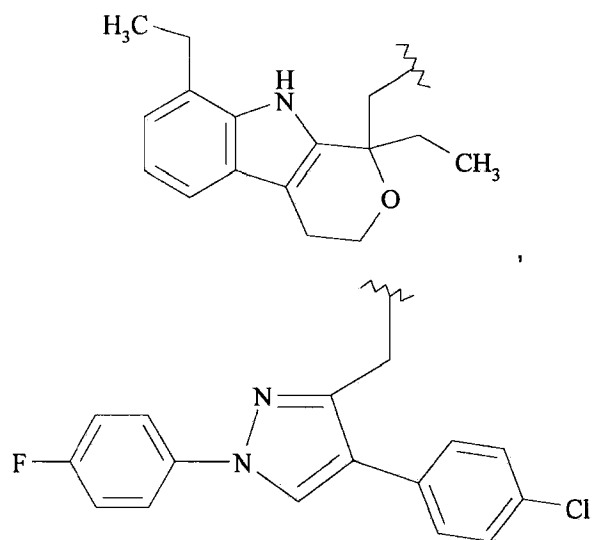
R^C is selected from: H, OH, NH_2 , R^ECONH- , R^ECOO- , an heterocyclic residue with 5 or 6 atoms that may be aromatic, saturated or unsaturated, containing one or more heteroatoms selected from oxygen, nitrogen or sulfur, and phenylamino ($PhNH-$), in which the aromatic ring may be substituted with one or more substituents selected from the group consisting of halogen, straight or branched C_1 - C_4 -alkyl and straight or if

possible branched perfluoroalkyl;

e is 0 or 1;

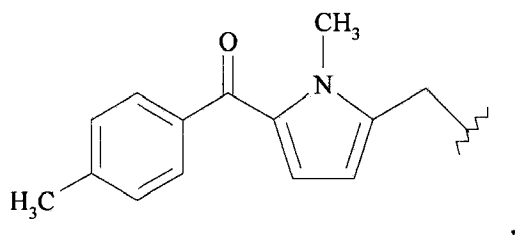
R^E is selected from the group consisting of straight or branched C_1 - C_5 -alkyl, phenyl substituted with $OCOR^F$, wherein R^F is selected from the group consisting of methyl, ethyl or straight or branched C_3 - C_6 -alkyl or phenyl;

R^D is selected from: H, OH, halogen, $-NH_2$, straight or branched C_1 - C_6 -alkoxy, perfluoroalkyl having from 1 to 4 carbon atoms and mono or di- $(C_1$ - $C_6)$ alkylamino; with the proviso that R^C and R^D cannot both be H;

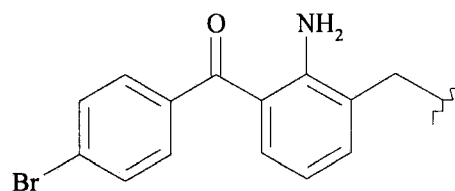


(IV)

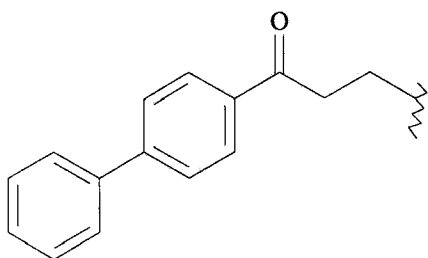
(V)



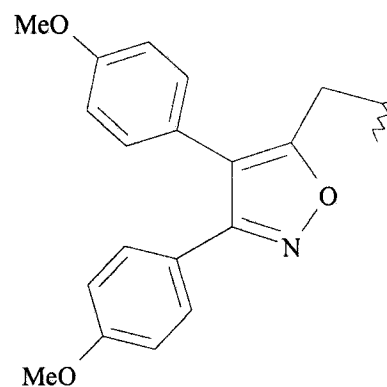
(VI)



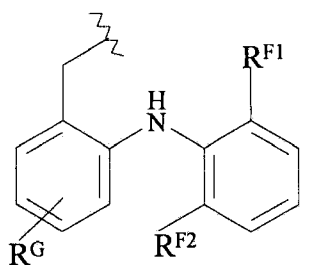
(VII)



(VIII)

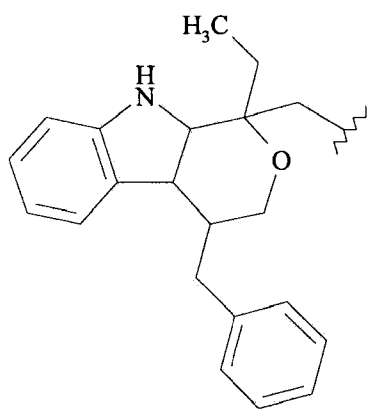


(IX)

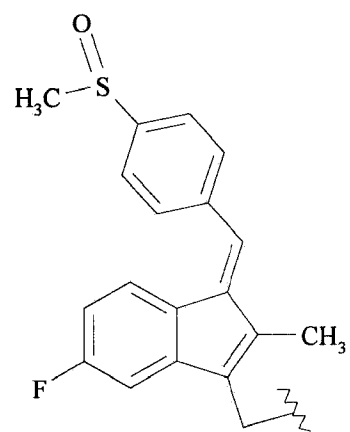


(X)

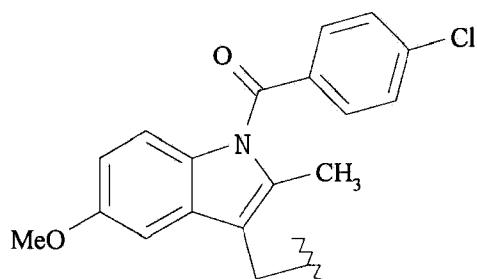
wherein R^{F1} and R^{F2} are halogens selected from chlorine, fluorine or bromine, R^G is hydrogen, straight or branched C_1 - C_6 -alkyl;



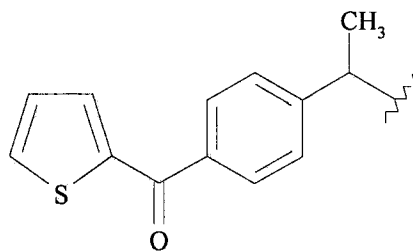
(XI)



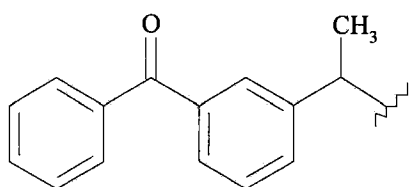
(XII)



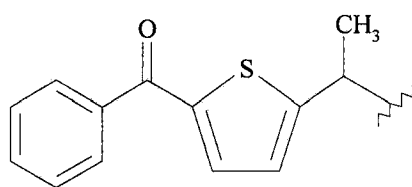
(XIII)



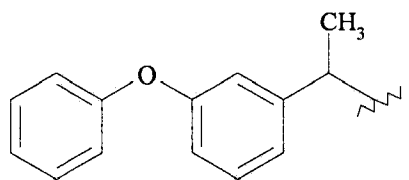
(XIV)



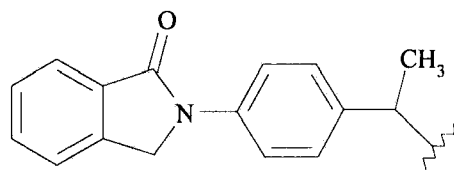
(XV)



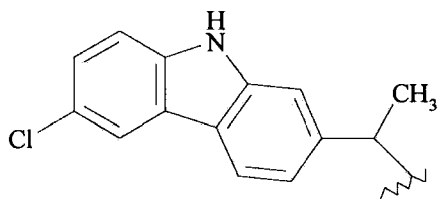
(XVI)



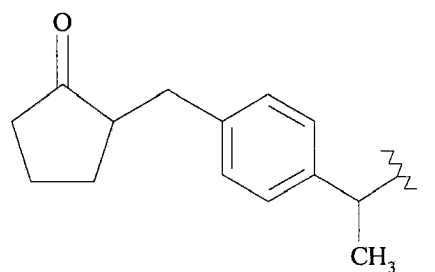
(XVII)



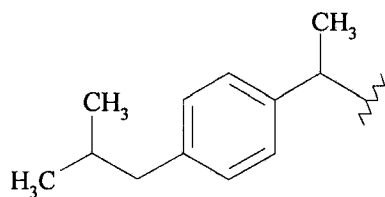
(XVIII)



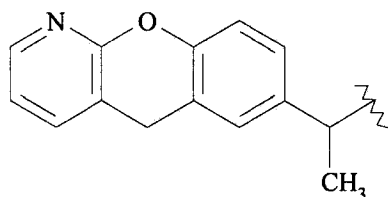
(XIX)



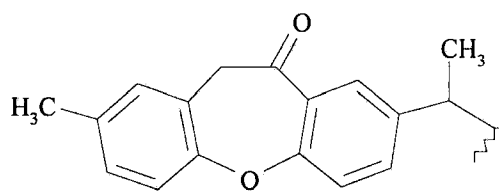
(XXI)



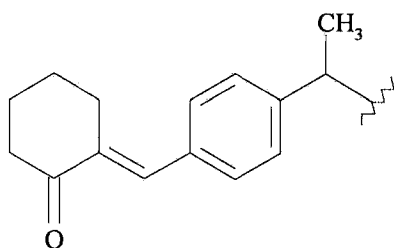
(XXII)



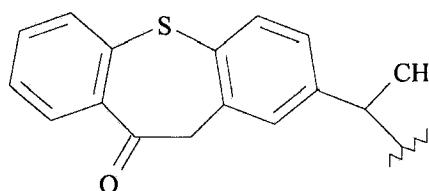
(XXIII)



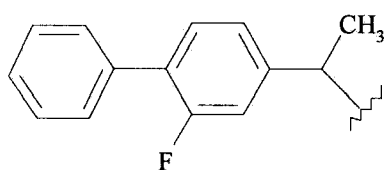
(XXIV)



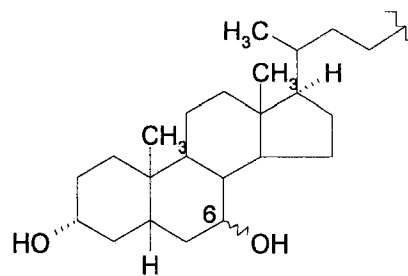
(XXV)



(XXVI)

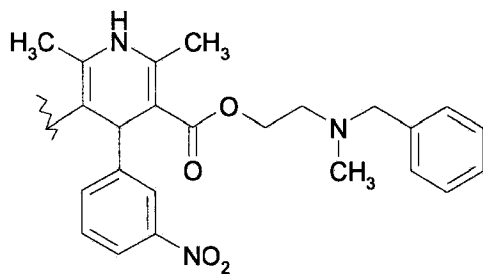


(XXVII)

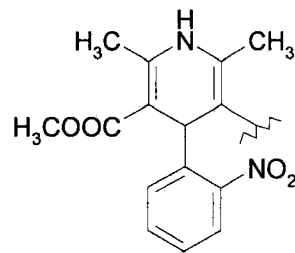


(XXVIII)

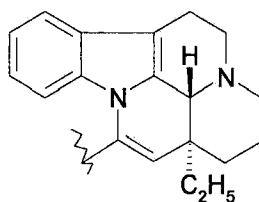
wherein the bond at 6 position in formula (XXVIII) may be α or β ;



(XXIX)



(XXX)



(XXXI)

and wherein in all the formulae (I-XXXI) listed above, the wavy line represents the position wherein -COO- group is bound;

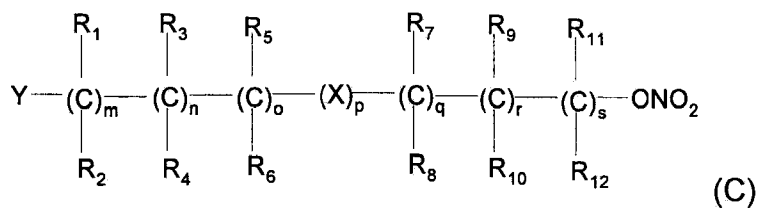
said process comprising reacting a compound of formula (B)



wherein R is as above defined and Z is hydrogen or a cation selected from

Li⁺, Na⁺, K⁺, Ca⁺⁺, Mg⁺⁺, tetralkylammonium, tetralkylphosphonium,

with a compound of formula (C)



wherein R_1 - R_{12} and m, n, o, p, q, r, s are as defined above and

Y is selected from

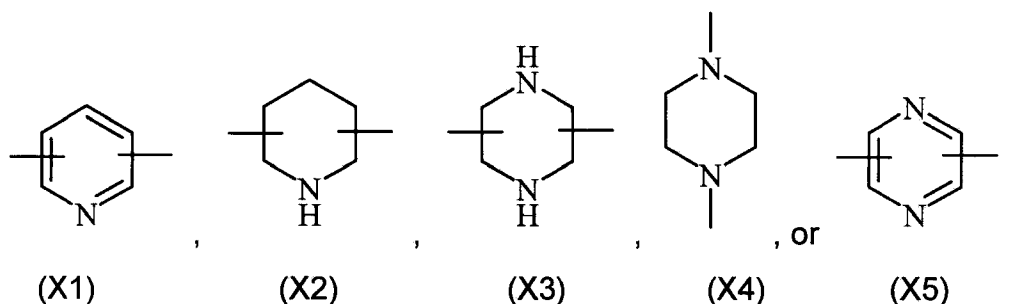
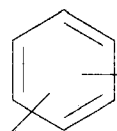
- $-\text{BF}_4$, $-\text{SbF}_6$, FSO_3^- , $\text{R}_\text{A}\text{SO}_3^-$, in which R_A is a straight or branched C_1 - C_6 alkyl, optionally substituted with one or more halogen atoms, or a C_1 - C_6 alkylaryl;
- $\text{R}_\text{B}\text{COO}^-$, wherein R_B is straight or branched C_1 - C_6 alkyl, aryl, optionally substituted with one or more halogen atoms or NO_2 groups, C_4 - C_{10} heteroaryl and containing one or more heteroatoms, which are the same or different, selected from nitrogen, oxygen, sulfur or phosphorus;
- aryloxy optionally substituted with one or more halogen atoms or NO_2 groups, or heteroaryloxy.

Claim 2. (Previously Presented) A process for preparing a compound of formula (A) according to claim 1 wherein:

the substituents R_1 - R_{12} are the same or different and independently are hydrogen or straight or branched C_1 - C_3 alkyl,

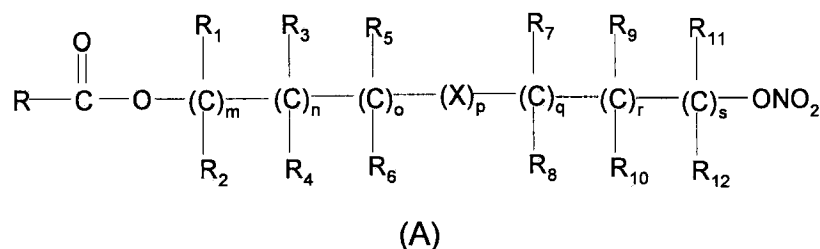
m, n, o, p, q, r and s are as defined above,

X is O, S or

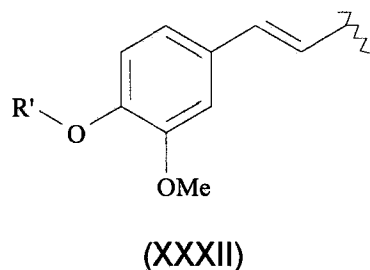


Claim 3. (Previously Presented) A process for preparing a compound of formula (A) according to claim 1 wherein R₁-R₄ and R₇-R₁₀ are hydrogens; m, n, q, and r are 1; o and s are 0; p is 0 or 1; and X is O or S.

Claim 4. (Previously Presented) A process for preparing a compound of formula (A)



wherein R is the ferulic acid radical of formula (XXXII):



wherein R' is H, or a group R(CO)-, in which R is as above identified;

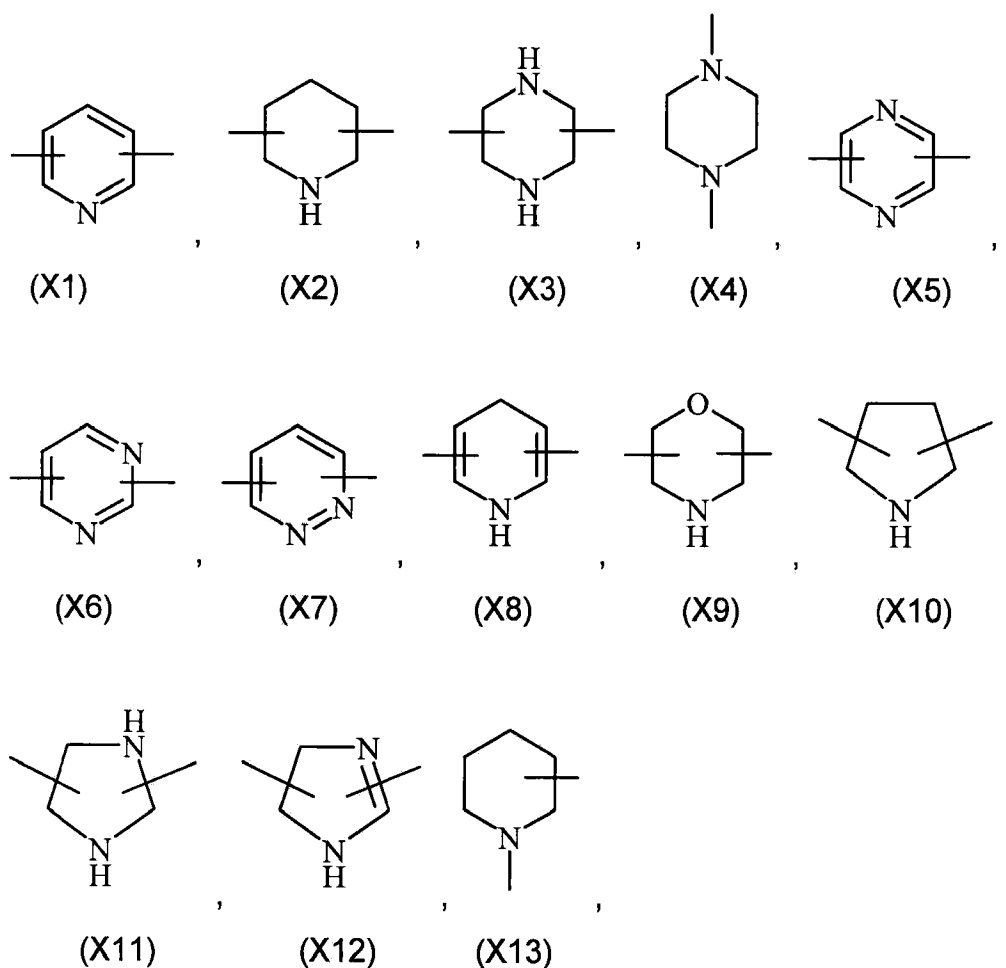
and wherein the wavy line represents the position wherein a -COO group is bound;

R₁-R₁₂ are the same or different and independently are hydrogen, straight or branched C₁-C₆ alkyl, optionally substituted with aryl;

m, n, o, q, r and s are each independently an integer from 0 to 6, and p is 0 or 1, and

X is O, S, SO, SO₂, NR₁₃ or PR₁₃, in which R₁₃ is hydrogen, C₁-C₆ alkyl, or X is selected from the group consisting of:

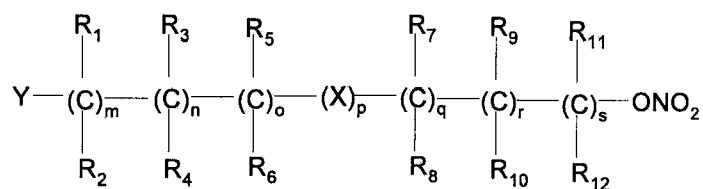
- saturated or unsaturated C₅-C₇ cycloalkylene, optionally substituted with one or more straight or branched C₁-C₃ alkyl groups;
- arylene, optionally substituted with one or more halogen atoms, straight or branched alkyl groups containing from 1 to 4 carbon atoms, or a straight or branched C₁-C₃ perfluoroalkyl;
- a 5 or 6 member saturated, unsaturated, or aromatic heterocyclic ring selected from



said process comprising reacting a compound of formula (B):



wherein R is as above defined and Z is hydrogen or a cation selected from Li^+ , Na^+ , K^+ , Ca^{++} , Mg^{++} , tetralkylammonium, tetralkylphosphonium, with a compound of formula (C):



(C)

wherein R_1 - R_{12} and m,n,o,p,q,r,s are as defined above and

Y is selected from

- Br, Cl or I;

$-\text{BF}_4$, $-\text{SbF}_6$, FSO_3^- , R_ASO_3^- , in which R_A is a straight or branched C_1 - C_6 alkyl, optionally substituted with one or more halogen atoms, or a C_1 - C_6 alkylaryl;

R_BCOO^- , wherein R_B is straight or branched C_1 - C_6 alkyl, aryl, optionally substituted with one or more halogen atoms or NO_2 groups, C_4 - C_{10} heteroaryl and containing one or more heteroatoms, which are the same or different, selected from nitrogen, oxygen sulfur and phosphorus;

aryloxy optionally substituted with one or more halogen atoms or NO_2 groups, or heteroaryloxy.

Claim 5. (Canceled)

Claim 6. (Currently Amended) A process for preparing a compound of formula (A) according to claim 1 or 4, wherein Y is selected from the group consisting of Br, Cl, I, $-\text{BF}_4$, $-\text{SbF}_6$, ClO_4^- , FSO_3^- , CF_3SO_3^- , $\text{C}_2\text{F}_5\text{SO}_3^-$, $\text{C}_3\text{F}_7\text{SO}_3^-$, $\text{C}_4\text{F}_9\text{SO}_3^-$, $p\text{-CH}_3\text{C}_6\text{H}_4\text{SO}_3^-$.

Claim 7. (Previously Presented) A process for preparing a compound of formula (A) according to claim 1 or 4, wherein the reaction is performed in an organic solvent selected from acetone, tetrahydrofuran, dimethylformamide, N-methylpyrrolidone, sulfolane and acetonitrile.

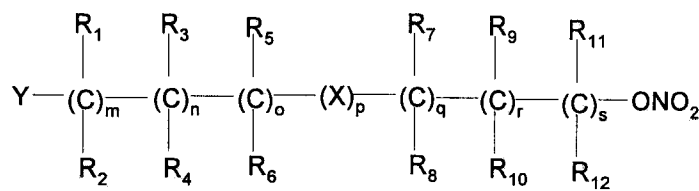
Claim 8. (Previously Presented) A process for preparing a compound of formula (A) according to claim 1 or 4, wherein the reaction is performed in a biphasic system comprising an aprotic dipolar solvent selected from toluene, chlorobenzene, nitrobenzene, tert-butyl-methylether and a water solution wherein the organic solution contains (C) and the water solution contain an alkaline metal salt of (B), in presence of a

phase transfer catalyst.

Claim 9. (Previously Presented) A process for preparing a compound of formula (A) according to claim 1 or 4, wherein the reaction is performed at a temperature ranging from 0°C to 100°C.

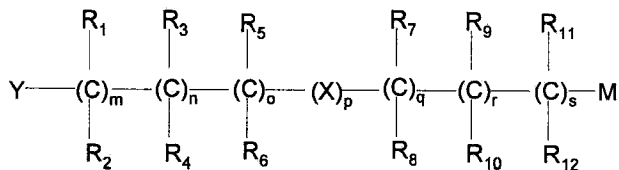
Claim 10. (Previously Presented) A process for preparing a compound of formula (A) according to claim 1 wherein the compounds of formula B and C are reacted at a (B)/(C) molar ratio of 2-0.5.

Claim 11. (Previously Presented) A process for preparing a compound of formula (C)



(C)

wherein R₁-R₁₂, m, n, o, p, q, r, s, X, Y are as defined in claim 1, comprising reacting a compound of the following formula (D)



(D)

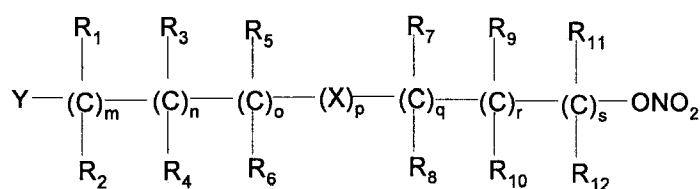
wherein M is OH and the other substituents and indices are as above defined, with a nitrating agent.

Claim 12. (Previously Presented) A process for preparing a compound of formula (C), according to claim 11 wherein the nitrating agent is sulfonitric mixture.

Claim 13. (Previously Presented) A process for preparing a compound of formula (C), according to claim 11 wherein the compound (D) and the nitrating agent are at molar ratio of 2-0.5.

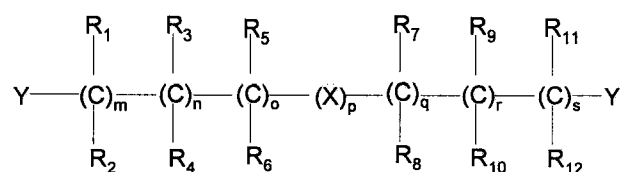
Claim 14. (Previously Presented) A process for preparing a compound of formula (C), according to claim 11 wherein the reaction is performed at a temperature ranging from 0°C to 100°C.

Claim 15. (Previously Presented) A process for preparing a compound of formula (C)



(C)

wherein R_1 - R_{12} , m , n , o , p , q , r , s , X , Y are as defined in claim 1, comprising reacting a compound of the following formula (E),



(E)

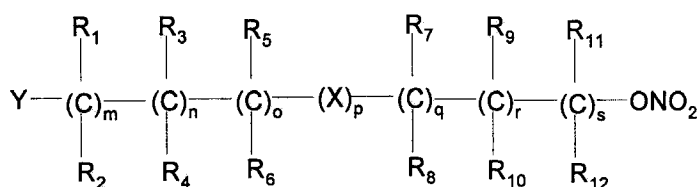
wherein R_1 - R_{12} , m , n , o , p , q , r , s , X , Y are as defined above with a nitrating agent.

Claim 16. (Previously Presented) A process for preparing a compound of formula (C), according to claim 15, wherein the nitrating agent is selected from alkaline metal nitrates, quaternary ammonium nitrates, quaternary phosphonium nitrates, $AgNO_3$, $Zn(NO_3)_2 \cdot 6H_2O$.

Claim 17. (Previously Presented) A process for preparing a compound of formula (C), according to claim 15, wherein the compound of formula (E) and the nitrating agent are at molar ratio of 20:2.

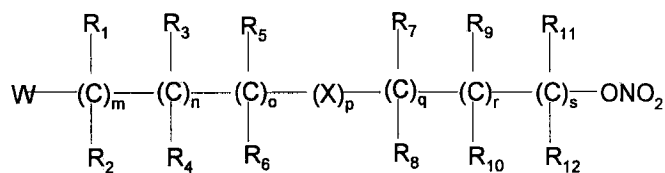
Claim 18. (Previously Presented) A process for preparing a compound of formula (C), according to claim 15, wherein the reaction is performed at a temperature ranging from 0°C to 100°C.

Claim 19. (Previously Presented) A process for preparing a compound of formula (C)



(C)

wherein R_1 - R_{12} , m , n , o , p , q , r , s , X , Y are as defined in claim 1, comprising reacting a compound of the following formula (F),



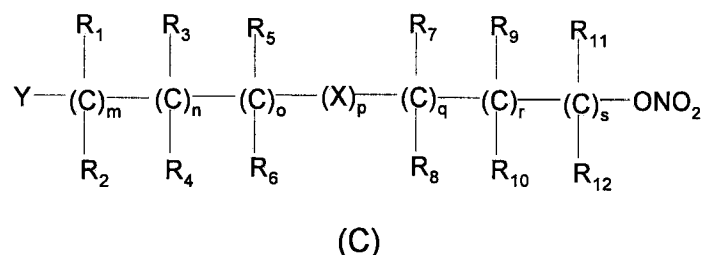
(F)

wherein R_1 - R_{12} , m , n , o , p , q , r , s , X , are as defined above, W is OH or halogen, with a compound selected from alkanoylsulfonylchloride and trifluoromethansulfonic anhydride when W is OH or with $AgSbF_6$, $AgBF_4$, $AgClO_4$, CF_3SO_3Ag , $AgSO_3CH_3$, $CH_3C_6H_4SO_3Ag$ when W is halogen.

Claim 20. (Original) A process for preparing a compound of formula (C) according to claim 19 wherein the compound (F) and the nitrating agent are at molar ratio of 2:0.5.

Claim 21. (Previously Presented) A process for preparing a compound of formula (C), according to claim 19, wherein the reaction is performed at a temperature ranging from 0°C to 100°C.

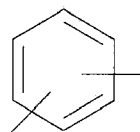
Claim 22. (Previously Presented) A compound of formula (C)



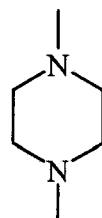
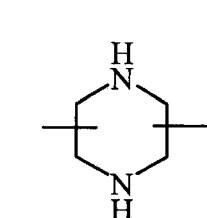
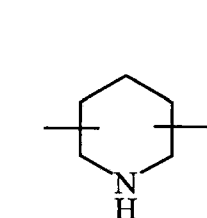
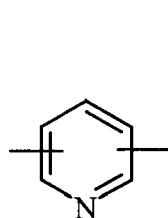
wherein R_1 - R_{12} , m , n , o , p , q , r , s , X , Y are as defined in claim 1 with the proviso that Y is not halogen.

Claim 23. (Previously Presented) A process for preparing carboxylic acid nitrooxyalkyl derivatives of formula (A) of claim 19, comprising using nitrooxyalkyl derivatives of general formula (C).

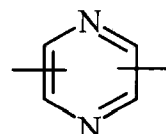
Claim 24. (Previously Presented) A process for preparing a compound of formula (A) according to claim 4, wherein R_1 - R_{12} are the same or different and independently are hydrogen or a straight or branched C_1 - C_3 alkyl,
 m , n , o , p , q , r and s are as defined above,
 X is O, S or



,



, or



(X1)

(X2)

(X3)

(X4)

(X5)

Claim 25. (Previously Presented) A process for preparing a compound of formula (A) according to claim 4, wherein R_1-R_4 and R_7-R_{10} are hydrogens; m, n, q and r are 1; o and s are 0; p is 0 or 1; and X is O or S.

Claim 26. (Previously Presented) A process for preparing a compound of formula (A) according to claim 4, wherein in the compound of formula (B), Y is Br.